CLAIMS

What is claimed is:

1. A method for validating a rear steering angle of a vehicle, comprising:

receiving a plurality of signals indicative of said rear steering angle;

checking at least one of said plurality of signals to determine if it falls
within a valid range;

correlating at least a first signal of said plurality of signals with at least a
second signal of said plurality of signals to determine if either said first
signal or said second signal is invalid; and

signaling a rejection of any of said plurality of signals found to be
invalid.

2. A method as defined in Claim 1, said correlating comprising:

comparing said first signal with an expected value at about an inflection
point of said second signal.

3. A method as defined in Claim 2, said correlating further comprising:

adding a second rear-wheel angle offset corresponding to said
inflection point to a signal corresponding to said second signal in response to
said comparing.

4. A method as defined in Claim 3, said correlating further comprising:

subtracting a center value from said second signal; and
multiplying a result of said subtracting by a scale factor.

5. A method as defined in Claim 3, further comprising:
computing said expected value with reference to a look-up table.

6.   A method as defined in Claim 3, further comprising:

computing said expected value by evaluating a continuous function.

7.   A method as defined in Claim 1, said correlating comprising:

calculating a steering angle corresponding to one of said first signal and said second signal so as to create a calculated angle; and

5   computing an expected value of the other of said first signal and said second signal in accordance with said calculated angle.

8.   A method as defined in Claim 7, said correlating further comprising:

comparing said expected value of said other of said first signal and said second signal with an actual value of said other of said first signal and

5   said second signal.

9.   A method as defined in Claim 8, said correlating further comprising:

determining that any of said plurality of signals is invalid if said expected value and said actual value are not substantially equivalent.

10.   A method as defined in Claim 7, wherein at least one of said calculating and said computing further comprises using a look-up table.

11.   A method as defined in Claim 7, wherein at least one of said calculating and said computing further comprises evaluating a continuous function.

12.   A method as defined in Claim 1, wherein said plurality of signals comprises a plurality of signal components of a single carrier signal.

13.   A method as defined in Claim 1, wherein said receiving further comprises providing a single sensor having two signal outputs.

14. A method as defined in Claim 1, wherein said checking further comprises:

comparing at least one of said plurality of signals with an upper limit; and

5 comparing at least one of said plurality of signals with a lower limit.

15. A storage medium encoded with a machine readable computer program code comprising:

computer code for receiving a plurality of signals indicative of a rear steering angle;

5 computer code for checking at least one of said plurality of signals to determine if it falls outside a valid range and is invalid;

computer code for correlating at least a first signal of said plurality of signals with at least a second signal of said plurality of signals to determine if either said first signal or said second signal is invalid; and

10 computer code for signaling a rejection of any of said plurality of signals found to be invalid.

16. A computer data signal comprising:

computer code for receiving a plurality of signals indicative of a rear steering angle;

computer code for checking at least one of said plurality of

5 signals to determine if it falls outside a valid range and is invalid;

computer code for correlating at least a first signal of said plurality of signals with at least a second signal of said plurality of signals to determine if either said first signal or said second signal is invalid; and

computer code for signaling a rejection of any of said plurality of

10 signals found to be invalid.

17.   A rear steering system for a vehicle, comprising:

at least one actuator in operable communication with a pair of rear wheels; and

a controller operably interconnected with said actuator; a

5   means for receiving a plurality of signals indicative of a rear steering angle of said rear wheels;

means for checking at least one of said plurality of signals to determine if it falls outside a valid range and is invalid;

means for correlating at least a first signal of said plurality of

10   signals with at least a second signal of said plurality of signals to determine if either said first signal or said second signal is invalid; and

means for signaling a rejection of any of said plurality of signals found to be invalid.

18.   A controller for a rear-wheel steering system, the controller comprising:

means for receiving a plurality of signals indicative of a rear steering angle;

5   means for checking at least one of said plurality of signals to determine if it falls outside a valid range and is invalid;

means for correlating at least a first signal of said plurality of signals with at least a second signal of said plurality of signals to determine if either said first signal or said second signal is invalid; and

10   means for signaling a rejection of any of said plurality of signals found to be invalid.

19.   A controller for a rear-wheel steering system, the controller comprising:

at least one input terminal for receiving a plurality of signals indicative of a rear steering angle;

5   at least one comparator for checking at least one of said plurality of signals to determine if it falls outside a valid range and is invalid;

at least one correlation function for correlating at least a first signal of said plurality of signals with at least a second signal of said plurality of signals to determine if either said first signal or said second signal is invalid;

10   and

at least one output terminal for signaling a rejection of any of said plurality of signals found to be invalid.

20.   A method for determining a steering angle comprising:

receiving a plurality of signals indicative of said steering angle;

checking at least one of said plurality of signals to determine if it falls within a valid range;

5   correlating at least a first signal of said plurality of signals with at least a second signal of said plurality of signals to determine that neither said first signal or said second signal is invalid;

determining a first value of said steering angle in accordance with said first signal; and

10   .   determining a second value of said steering angle in accordance with said first value of said steering angle and said second signal in order to obtain a more accurate measurement.